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Nurses as role models in health promotion: a concept analysis

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Title: Role models in health promoting behaviour: concept analysis and development

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Abstract

There are national and international expectations that nurses are healthy role models but there is a lack of clarity about what this concept means. This study used concept analysis methodology to provide theoretical clarity for the concept of role models in health promoting behaviour for registered nurses and students. The framework included analysis of literature and qualitative data from six focus groups and one interview. Participants ($n=39$) included pre-registration students (Adult field), nurse lecturers and registered nurses (RNs), working in NHS Trusts across London and South East London. From the findings, being a role model in health promoting behaviour involves being an exemplar, portraying a healthy image (being fit and healthy), and championing health and wellness. Personal attributes of a role model in health promoting behaviour include being: caring, non-judgemental, trustworthy, inspiring and motivating, self-caring, knowledgeable and self-confident, innovative, professional and having a deep sense of self.

Key words:

Nurses ■ Role model ■ Health promotion ■ Health behaviour
■ Concept analysis

Key points:

- Most nurses and pre-registered nurses are unaware of the NMC statutory requirement to be role models in health promoting behaviour
- Many nurses and pre-registered nurses do not understand what is meant by role modeling health promoting behaviour
- Being a role model in health promoting behaviour involves being an exemplar, portraying a healthy image (being fit and healthy), and championing health and wellness.
- Being a role model requires a range of personal attributes: being: caring, non-judgemental, trustworthy, inspiring and motivating, self-caring, knowledgeable and self-confident, innovative, professional and having a deep sense of self.
- Working as a nurse does not always support individuals to be healthy and the working life of a nurse is pertinent to the wider public health agenda
- Understanding the individual, organisational, societal and educational factors that affect nurses' ability to be role models in health promoting behaviour may provide a basis for supporting them to meet the statutory requirement.

Introduction

There are national (Department of Health [DH] 2009, 2010, 2011) and international (International Council of Nurses [ICN] 2010) expectations for nurses to be role models in health promoting behaviour. The Nursing and Midwifery Council (NMC) competency framework for student nurses outlines a statutory requirement for registration as a nurse: "*all nurses must take every opportunity to encourage health promoting behaviour through education, role modeling and effective communication*" (NMC. 2010, p.25). In addition, the Royal Society for Public Health (RSPH) has

called for health professionals to be healthy role models and suggests the weight of a health professional affects whether the public heed advice about healthy lifestyles (RSPH 2014).

The expectation for nurses to be healthy role models is not always consistent with the reality of their health. Many National Health Service (NHS) staff are obese or overweight, lack sufficient physical exercise, smoke or have poor nutrition (Blake et al., 2011, Blake et al., 2012, Blake and Patterson, 2015). International research suggests that this situation is not limited to the UK (Timmins 2011, Miller et al., 2008, Zapka et al., 2009, King et al 2009, Clarke et al 2004). The term role modelling in relation to health promotion is widely used within nursing literature with the assumption of agreed understanding. There is very little existing research exploring the concept and there appears to be a gap in knowledge of how nurses define the concept. If pre-registered nurses are expected to become role models in health promoting behaviour upon registration then it is important to clarify the meaning of the term. This article presents findings from a study that used a concept analysis methodology to clarify the meaning of role-modelling health promoting behaviour

Methods

A hybrid concept analysis approach was adapted for this study following careful appraisal of strengths and weaknesses of four recognised approaches: a classical method (Wilson 1963), an eight step simplified approach (Walker and vant 2014), a hybrid approach (Schwartz-Barcott and Kim, 2000) and an evolutionary approach (Rodgers 1989). A three-phased approach included theoretical, fieldwork and final analytical phases: i) literature analyses ii) qualitative data analysis and iii) integration of both literature and the qualitative data. Analysis included identifying antecedents, defining attributes, consequences, selecting cases and empirical referents to nurses as role models in health promoting behaviour.

The theoretical phase involved systematic retrieval of multi-disciplinary academic literature between January 2014 and January 2015 to identify implicit use of the term 'role model'. A second search of nursing literature was conducted to retrieve literature specific to nurses role modelling health promoting behaviour. Web of Science, British Nursing Index, Pub Med and Cumulative Index to Nursing and Allied Health Literature were accessed using search terms "role model*" AND nurs* AND health* in English Language only. Literature published between 1986 and February 2015 was reviewed including research studies, scholarly articles, editorials and opinion pieces to capture current interpretation and understanding of the concept.

The fieldwork phase involved focus groups and one interview. There were thirty-nine participants (Table 1), across six focus groups and one interview: eighteen student nurses, thirteen RNs, and eight educators (mean age 33, range 21-58, 74% white, 8% male). Participants worked across a range of NHS Trusts across London and South East London. Purposive sampling was used to obtain a broad range of experiences from third year student nurses and nurse educators. Third year students would be approaching completion of their education to prepare them to meet the statutory requirements for registration outlined in the NMC's (2010) standards for pre-registration nurse education, which was the rationale for recruitment. A topic guide included: *What do you think role modeling health promoting behaviour*

means?; Can you identify any experiences/ examples of observing registered or student nurses role modelling to encourage health promoting behaviour?

Table 1 Participant characteristics

The final analytical phase included focused searching for defining attributes, antecedents and consequences in qualitative data, which were compared and integrated with findings from the theoretical phase. Ethical approval for the study was obtained from relevant university approval committees.

Recruitment

Participants were based at a university which provides clinical placements for students, and postgraduate education for nurses, across a range of NHS Trusts and independent organisations in London and South East England which provided recruitment from a wide range of clinical areas. Purposive sampling offered an opportunity to provide in depth understanding and insight into the views of nurse educators and third year students. Convenience sampling of registered nurses took place by approaching a group attending a mentorship course at the university to prepare them for teaching and assessing student nurses in clinical areas. This provided a sample from a range of clinical backgrounds and therefore provided data from 'real-life' conversations within the group (Kitzinger, 1994).

Findings

Defining attributes, antecedents and consequences identified from the literature and focus group data are presented in this section, organised around individual, societal, organisational and educational aspects (Table 2). Attributes are defining characteristics always present in a concept. Antecedents are things that must exist before occurrence of the concept: what is necessary before it can occur. Consequences are incidents or events occurring as the result of the concept (Walker & Avant 2014).

In total 118 papers were analysed: Firstly 39 papers across ten disciplines and 16 countries provided insight to the term 'role model', providing a platform from which to further analyse the concept 'role modelling health promoting behaviour'. Being a role model was determined as: being motivational, transmitting ethics, and demonstrating professional skills and conduct. Gender, similarity and parental influence were identified as relevant to determining the impact of role models' determining factors.

Figure 1: Captured Multi-Discipline Literature

Secondly, 79 nursing publications were critical reviewed and analysed. The nursing papers explicitly referring to nurses as role models in health promoting behaviour.

Defining attributes

Personal attributes identified in literature associated with being a role model in health promoting behaviour included being: caring, non-judgmental, trustworthy, inspiring, self-aware and self-caring. The need to be caring was discussed as having warmth,

sensitivity, patience and empathy (Brown and Thompson 2007, Hicks et al 2008, Blake and Harrison 2013). Being non-judgmental and having unconditional acceptance was frequently considered an attribute within the literature (Kinney and Erickson, 1990, Rush et al., 2005, Hagglund, 2009, Rush et al., 2010), while not being patronising (Dunkley and Ward, 2005) or self-righteous (Curtin, 1986) were considered important too. Being trustworthy included qualities of honesty, genuineness and being sincere or authentic (Glugover, 1987, Clarke, 1991, Rush et al., 2005, Rush et al., 2010, Marchiondo, 2014). Ideal role models are inspirational and motivational (Rush et al. 2005) and often divergent thinkers with an empowering approach to health promotion (Chambers and Thompson, 2009). Having a sense of 'self' or self-awareness is necessary (Clarke, 1991; Borchardt, 2000; Rush et al., 2005); being a healthy role model is not just what nurses do but what they are (Clarke, 1991).

Most authors referred to weight management and healthy eating when considering self-care (Connolly et al., 1997, Denehy, 2008, Hicks et al., 2008, Rush et al., 2010, Blake et al., 2011, Connolly et al., 2013, Roux et al., 2014, Blake and Patterson, 2015). Others considered self-care to include smoking cessation or being non-smokers (Connolly et al., 1997, Halcomb, 2005, Dunkley and Ward, 2005, Beletsioti-Stika and Scriven, 2006, Dao Thi Minh et al., 2008, Moxham et al., 2013,). Self-care involves nurses caring for themselves while caring for others (Denehy 2003) and prioritising self by having a healthy lifestyle (O'Connor 2002). Other attributes included portraying yourself in a healthy way (Chalmers et al 2003); being an exemplar to society by practising what you preach (DeMello et al., 1989; Jaarsma et al 2004; Blake and Chambers, 2011); and championing for health and wellness (Blake and Chambers 2011; Malik et al., 2011; Blake and Patterson 2015).

Antecedents

Individual antecedents included nurses believing in health promotion and that being a healthy role model can have an impact (Dao Thi Minh et al. 2008, Esposito and Fitzpatrick, 2011;). Some considered valuing self was essential (Denehy, 2003, 2008; Clarke 1991) and others perceived nurses being healthy role models obligatory (Denehy 2003). A public belief that nurses are knowledgeable (Rush 2005, 2010) and a positive image of nursing (Borchardt 2000; Blake and Harrison, 2013) were believed important. Tones (1992) considered nurses being politically and socially active necessary. There were references to educational antecedents, which focused on two main factors: understanding and application of health promotion for nursing students through the curriculum (Holt and Warne 2007; Blake et al., 2011), and understanding of health promotion for RNs through training (Warren et al., 2008, Malik et al, 2011). Some authors suggested initiatives for improving personal health, if necessary, during nurse education, to address diet, alcohol consumption, and exercise (Kamwendo et al., 2000; Yeh et al., 2005; Blake and Chambers, 2011, Blake and Harrison, 2013,). Timmins et al. (2011) argued that supporting students' mental health is crucial during education, helping them develop healthy coping mechanisms and become role models.

Organisational antecedents included; workplace support for healthy lifestyle, addressing workplace stress and nurse leaders being healthy role models.

Workplace support focused predominantly on smoking cessation either through policies (Dao Thi Minh et al., 2008, Halcomb, 2005), or classes (Dalton and Swenson, 1986, DeMello et al., 1989, Baron-Epel et al., 2004; Pollard, 2004, Slater et al., 2006; Connolly et al., 2013). Healthy available food was also considered necessary (Blake et al., 2011, Naish 2012; Eggertson, 2013). Other suggestions included fitness programmes, cycle to work schemes and sports tournaments to suit shift work (Zapka et al., 2009, Blake et al., 2011 Naish, 2012).

Consequences

Many consequences identified in the literature were views and opinions of authors, and most identified positive outcomes. Learning how to be a healthy role model during nurse training can have a positive impact on personal health habits of students (Shriver and Scott-Stiles, 2000). Nurses being role models in behaviours such as physical exercise might equip students to cope with stressors of the profession (Malik et al 2011). Inspiring behaviour change in the general public was viewed a consequence of nurses being healthy role models by many authors (Dalton and Swenson, 1986, Shriver and Scott-Stiles, 2000, Merrill et al., 2010, Moxham et al., 2013, Eggertson, 2013 Roux et al., 2014). However, some considered the expectation to be healthy role models an added burden, which may create stress for some (Rush et al., 2005; Pollard 2005; Blake and Patterson, 2015).

Table 2 Antecedents, defining attributes and consequences for role modelling healthy behaviour

The analysis resulted in identifying a concept related to but inconsistent with the general consensus of role modelling evident in the literature, which was separated as a *related case*: *'the imperfect 'humanised role model'*. Related cases share some but not all defining attributes and often highlight the complexity of the concept under analysis. Many authors made reference to, or argued for, nurses being good role models by sharing similar health problems or behaviours as their patients because they have more empathy (Rush et al., 2005, Rush et al., 2010, Blake and Patterson, 2015). Rush et al (2005) suggest that aspects of the imperfect role model involve valuing health, accepting your own imperfections and self-reflecting while gaining trust, caring and partnering with patients by sharing the same struggles.

Antecedents, defining attributes and consequences identified in qualitative data predominantly supported and refined those identified in the literature, however, further considerations were identified and included in Table 2. Participants considered empowerment, feeling valued and addressing personal health through developing personal resilience and self-healing to be necessary for nurses to be healthy role models. Lecturers considered empowerment was essential for students to challenge workplaces and transfer healthy practices that were encouraged in education into practice. Self-healing was described as necessary during education for some that enter the profession with *"baggage"*, such as loss or illness of a loved one. Participants considered 'feeling valued' within organisations was necessary and linked feeling unvalued at work a barrier to being healthy role model and adversely affecting their personal health. Many participants considered that working as a nurse does not support their own health; lack of breaks, facilities and shift work were often cited.

Participants perceived developing personal resilience and healthy coping mechanisms during education should be core components of nurse education and not seen as *‘the icing on the cake’*. They considered being innovative, creative and flexible as necessary characteristics. Many participants perceived being healthy role models could improve lives, health and quality of life for individuals however a few perceived the consequences on society could be minimal. Some participants found it difficult to define being a role model in health promoting behaviour and many were unable to recall examples of good role models in their working environments. However one participant provided a real-life example (Box 1) that demonstrated all attributes of a good role model: a model case.

Box 1. Model case

“She promotes a healthy lifestyle. She does health and fitness for us outside of work as a means of helping us promoting healthy lifestyles. I think it just ties in with her role as a diabetic specialist, she’s not saying to women you shouldn’t do this, you shouldn’t do that, but she herself is immaculate, she is about 60 and there isn’t an ounce of fat on her, it does make us feel very ashamed but she doesn’t do it in that sort of way, she just presents it in a very gentle, sensitive manner and I think her way of helping us as a community if you like is by giving free aerobics sessions twice a week.”

Many participants found it easier to recall examples of what they considered not to be a healthy role model. One such example was identified as a contrary case (Box 2).

Box 2. Contrary case

“In ITU one nurse was very addicted and would go out and smoke and come back with scrubs stinking. I personally thought that was really unacceptable, I mean I can understand he has an addiction but coming into that environment and stinking of it and you know the patient’s relatives would smell it”

Participants raised a concern not previously identified in the literature. Student nurses, RNs and educators considered the requirement for nurses to be role models in health promoting behaviour might have a detrimental effect on nurse recruitment by deterring potential candidates. They were concerned that selection bias at interview might include judgment of observable weight.

Identifying empirical referents, the final step in concept analysis, provides a way to measure or demonstrate the occurrence of a concept and aids understanding of defining attributes (Table 3). Empirical referents can be used to define the theoretical base of a concept to guide development of a tool (e.g. questionnaire). Walker and Avant (2014) use an example of ‘kissing’ as an empirical referent to the concept of ‘affection’ to aide researchers’ understanding.

Table 3 Empirical referents for role-modelling healthy behaviour

Discussion

Many participants in this study were unaware of the NMC requirement to be role models in health promoting behaviour and considered a clear definition was required, which this study aimed to provide. Concept analysis can help explain terms that have become a catch phrase (Walker and & Avant, 1983) and the term role model in the context of health promoting behaviour has previously been used without clarification (DH, 2009, DH, 2010, DH, 2011, ICN, 2010, NMC, 2015,). This concept analysis addresses a gap in knowledge for nurses, organisations, educators and policy makers to understand that being a healthy role model is more than just being fit and healthy. Combined attributes identified in both literature and qualitative data provided a definition (Box 3) for nurses and pre-registered nurses to understand what being a role model actually involves.

Box 3. Definition: The nurse as a role model in health promoting behaviour
Being a role model in health promoting behaviour involves being an exemplar, portraying a healthy image (being fit and healthy), and championing health and wellness. Personal attributes of a role model in health promoting behaviour include being: caring, non-judgemental, trustworthy, inspiring and motivating, self-caring, knowledgeable and self-confident, innovative, professional and having a deep sense of self.

Further to defining the concept the nurse as a role model in health promoting behaviour, the methodology provided an opportunity to highlight considerations for nurse education. Learning to care for yourself while caring for others from the outset of education could support nurses of the future to develop healthier coping mechanisms by developing personal resilience, and this could be supported by considering personal exercise, diet and alcohol consumption (Kamwendo et al., 2000; Yeh et al., 2005; Blake and Chambers, 2011, Blake and Harrison, 2013,). To promote public health pre-registered nurse education should consider the content of the curriculum so promoting health is applied throughout rather than taught in isolation (Holt and Warne 2007; Blake et al., 2011).

There is a divide in opinion whether being an imperfect or 'humanised' role model can be helpful in promoting health (Rush 2005, 2010), which both the literature and participants in the present study demonstrated. Future research could explore whether those that considered sharing similar health problems helpful, were indeed already sharing such problems and whether cognitive dissonance has a part to play in such opinions.

Public health and health promotion is integral to a nurse's role and advocated within UK health policy over three decades (Holt and Warne, 2007). Perceived consequences of nurses as healthy role models identified in the literature and qualitative data are relevant to the wider public health agenda. The expectation to be role models can have a positive impact on the personal health of nurses (Malik et al.,

2011, Shriver and Scott-Stiles, 2000). However many participants in this study considered working as a nurse does not always support them to be healthy. It is therefore suggested that the working life of a nurse is pertinent to the wider public health agenda.

A limiting factor of this study should be considered when applying findings in other countries or other areas: qualitative data were collected in one area of England. However, integration of international literature contributed to an international perspective.

Conclusion

This concept analysis highlighted that nurses being role models in health promoting behaviour is a complex issue. The national and international expectation for nurses to be healthy role models is not always consistent with the reality of nurses' health. Understanding the complexities involved could inform organisations and educational providers to support nurses to be healthy role models.

References

- Baron-Epel, O., Josephson, K. & Ehrenfeld, M. (2004) Nursing students' perceptions of smoking prevention. *Nurse Education Today*, 24, 145-151.
- Beletsioti-Stika, R. & Scriven, A. (2006) Smoking among Greek nurses and their readiness to quit. *International Nursing Review*, 53, 150-156.
- Blake, H. & Chambers, D. (2011) Supporting nurse health champions: Developing a 'new generation' of health improvement facilitators. *Health Education Journal*, 71, 205-210.
- Blake, H. & Harrison, C. (2013) Health behaviours and attitudes towards being role models. *British Journal of Nursing*, 22, 86-94.
- Blake, H., Mo, P. K. H., Lee, S. & BATT, M. E. (2012) Health in the NHS: Lifestyle behaviours of hospital employees. *Perspectives in Public Health*, 132, 213-215.
- Blake, H. & Patterson, J. (2015) Paediatric nurses' attitudes towards the promotion of healthy eating. *British journal of nursing (Mark Allen Publishing)*, 24, 108-12.
- Borchardt, G. (2000) Said another way: role models for health promotion: the challenge for nurses. *Nursing Forum*, 35, 29-32.
- Brown, I. & Thompson, J. (2007) Primary care nurses' attitudes, beliefs and own body size in relation to obesity management. *Journal of Advanced Nursing*, 60, 535-543.
- Chalmers, K., Seguire, M. & Brown, J. (2003) Health promotion and tobacco control: Student nurses' perspectives. *Journal of Nursing Education*, 42, 106-112.
- Chambers, D. & Thompson, S. (2009) Empowerment and its application in health promotion in acute care settings: nurses' perceptions. *Journal of Advanced Nursing*, 65, 130-138.
- Clark, E., McCann, T. V., Rowe, K. & Lazenbatt, A. (2004) Cognitive dissonance and undergraduate nursing students' knowledge of, and attitudes about, smoking. *Journal of Advanced Nursing*, 46.
- Clarke, A. C. (1991) Nurses and Role Models and Health Educators. *Journal of Advanced Nursing*, 16, 1178-1184.
- Connolly, M., Floyd, S., Forrest, R. & Marshall, B. (2013) Mental health nurses' beliefs about smoking by mental health facility inpatients. *International Journal of Mental Health Nursing*, 22, 288-293.

Connolly, M. A., Gulanick, M., Keough V. & Holm, K. (1997) Health practices of critical care nurses: are these nurses good role models for patients? *American journal of critical care: an official publication, American Association of Critical-Care Nurses*, 6, 261-6.

Curtin, L. L. (1986) The case of the reluctant role model: from health to heresy. *Nursing management*, 17, 7-8.

Dao Thi Minh, A., Nguyen Van, H. & Dao Ngoc, P. (2008) Smoking Among Vietnamese Health Professionals: Knowledge, Beliefs, Attitudes, and Health Care Practice. *Asia-Pacific Journal of Public Health*, 20, 7-15.

Demello, D. J., Hoffman, L. A., Wesmiller, S. W. & Zullo, T. G. (1989) Smoking and attitudes toward smoking among clinical nurse specialists, critical care nurses, and medical-surgical nurses. *Oncology nursing forum*, 16, 795-9.

Denehy, J. (2003) School nurses: role models for healthy lifestyles? *The Journal of School Nursing: the official publication of the National Association of School Nurses*, 19, 249-50.

Denehy, J. (2008) Role models for healthy lifestyles revisited. *Journal of School Nursing*, 24, 1-2.

DH (2009) The NHS Health and Wellbeing final Report. London: DH Publication.

DH (2010) Front Line Care: Report by the Prime Minister's Commission on the future of Nursing and Midwifery in England. London: DH publication.

DH (2011) NHS Health and Wellbeing Improvement Framework. London: DH Publication.

Dunkley, S. & Ward, M. (2005) Should nurses be role models for health? *Nursing Times*, 101, 21.

Eggertson, L. (2013) The public's perception, the nurse's reality. *Canadian Nurse*, 109, 18-21

Erickson, H. C., Tomlin, E. M. & Swain, M. A. (1983) *Modelling and Role Modelling: A theory and paradigm for nursing*, Prentice-Hall, Englewood Cliffs, NJ

Esposito, E. M. & Fitzpatrick, J. J. (2011) Registered nurses' beliefs of the benefits of exercise, their exercise behaviour and their patient teaching regarding exercise. *International Journal of Nursing Practice*, 17, 351-356.

Glugover, D. (1987) Community health nurses: role models for change in our lives and in our clients lives. *Caring: National Association for Home Care magazine*, 6, 14-48.

Guardian. (2014) Doctors and nurses told to slim down for sake of patients. *Guardian online*.

Hagglund, L. (2009) Challenges in the treatment of factitious disorder: a case study. *Archives of Psychiatric Nursing*, 23, 58-64.

Halcomb, K. A. (2005) Smoke-free nurses: leading by example. *AAOHN journal: official journal of the American Association of Occupational Health Nurses*, 53, 209-12.

Hicks, M., McDermott, L. L., Rouhana, N., Schmidt, M., Seymour, M. W. & Sullivan, T. (2008) Nurses' Body Size and Public Confidence in Ability to Provide Health Education. *Journal of Nursing Scholarship*, 40, 349-354.

Holt, M. & Warne, T. (2007) The educational and practice tensions in preparing pre-registration nurses to become future health promoters: a small scale explorative study. *Nurse Education in Practice*, 7, 373-380.

ICN. (2010) *Delivering Quality, Serving Communities: Nurses Leading Chronic Care*. Geneva: International Council of Nurses.

Jaarsma, T., Stewart, S., De Geest, S et al. (2004) A survey of coronary risk factors and B-type natriuretic peptide concentrations in cardiac nurses from Europe: do nurses still practice what they preach? *European journal of cardiovascular nursing: journal of the Working Group on Cardiovascular Nursing of the European Society of Cardiology*, 3, 3-6.

Kamwendo, K., Faresjo, T., Gustavsson, U. & Jansson, M. (2000) Adherence to healthy lifestyles -- a comparison of nursing and physiotherapy students. *Advances in Physiotherapy*, 2, 63-74.

King, K., Vidourek, R. & Schwiebert, M. (2009) Disordered eating and job stress among nurses. *Journal of Nursing Management*, 17, 861-869.

Kinney, C. K. & Erickson, H. C. (1990) Modeling the client's world: a way to holistic care. *Issues in mental health nursing*, 11, 93-108.

Kitzinger, J. 1994. The methodology of focus group interviews: the importance of interaction between research participants. . *Sociology of Health and Illness*, 16, 103-121.

Malik, S., Blake, H. & Batt, M. E. (2011) How healthy are our nurses? New and registered nurses compared. *British Journal of Nursing* 20, 489-496.

Marchondo, K. (2014) Stemming the Obesity Epidemic: Are Nurses Credible Coaches? *MedSurg Nursing*, 23, 155-158.

Merrill, R. M., Gagon, H., Harmon, T. & Milovic, I. (2010) The Importance of Tobacco Cessation Training for Nurses in Serbia. *Journal of Continuing Education in Nursing*, 41, 89-96.

Miller, K., Alpert, P. Y. & Cross, C. L (2008) Overweight and obesity in nurses, advanced practice nurses, and nurse educators. *Journal of American Academy of Nurse Practitioners*, 200, 259-265

Moxham, L., Dwyer, T. & Reid-Searl, K. (2013) Graduate nurses and nursing student's behaviour: Knowledge and attitudes toward smoking cessation. *Nurse Education Today*, 33, 1143-1147.

Naish, J. (2012) Tackling a weighty issue. *Nursing Standard*, 26, 20-21.

NMC. 2010. Standards for competence for registered nurses. London: Nursing & Midwifery Council.

O'Connor, M. (2002) Nurse leader: heal thyself. *Nursing Administration Quarterly*, 26, 69-79.

Pericas, J., Gonzalez, S., Bennasar, M., De Pedro, J., Aguilo, A. & Bauza, L. (2009) Cognitive dissonance towards the smoking habit among nursing and physiotherapy students at the University of Balearic Islands in Spain. *International Nursing Review*, 56, 95-101.

Pollard, T. (2004) Are nurses expected to be role models too? *British Journal of Community Nursing*, 9, 517-517.

RSPH (2014) Public less trusting of diet and exercise advice from overweight doctors and nurses. <https://www.rsph.org.uk/about-us/news/publicless-trusting-of-diet-and-exercise-advice-from-overweight-doctors-andnurses.html> (accessed 17th August 2016)

Rodgers, B. L. (1989) Concepts, analysis, and the development of nursing knowledge: The evolutionary cycle. *Journal of Advanced Nursing*, 14, 330-335.

Roux, G., Dimarco, N., Gu, Y. et al. (2014) Eating, activity, and supportive environment (EASE) for nursing students. *Nursing forum*, 49, 49-58.

Rush, K. L., Kee, C. C. & Rice, M. (2005) Nurses as imperfect role models for health promotion. *Western Journal of Nursing Research*, 27(2), 166-183

- Rush, K. L., Kee, C. C. & Rice, M. (2010) The Self as Role Model in Health Promotion Scale: Development and Testing. *Western Journal of Nursing Research*, 32, 814-832.
- Sarna, L., Aguinaga Bialous, S., Zou, X. et al. (2016) Helping smokers quit: behaviours and attitudes of Chinese Registered Nurses. *Journal of Advanced Nursing*, 72, 107-117.
- Schwartz-Barcott, D. & KIM, H. S. (2000) An expansion and elaboration of the hybrid model of concept development. In: RODGERS, B. L. & KNAFL, K. A. (eds.) *Concept Development in Nursing: Foundation, Techniques, and Applications*. 2nd ed. Saunders, Philadelphia.
- Shriver, C. B. & Scott-Stiles, A. (2000) Health habits of nursing versus non-nursing students: A longitudinal study. *Journal of Nursing Education*, 39, 308-314.
- Slater, P., Mc Elwee, G., Fleming, P. & McKenna, H. (2006) Nurses' smoking behaviour related to cessation practice. *Nursing Times.net*, 102, 32-7.
- Timmins, F., Corroon, A. M., Byrne, G. & Mooney, B. (2011) The challenge of contemporary nurse education programmes. Perceived stressors of nursing students: mental health and related lifestyle issues. *Journal of Psychiatric and Mental Health Nursing*, 18, 758-766.
- Tones, B. K. (1992) The theory of health promotion: Implications for nursing. In: Clark, J. W. B. J. M. (ed.) *Research in health promotion and nursing*. MacMillan, London
- Walker, L. O. & Avant, K. C. (2014) *Strategies for Theory Construction in nursing*, Pearson New International Edition, Essex
- Warren, C. W., Jones, N. R., Chauvin, J., Peruga, A. & Grp, G. C. (2008) Tobacco use and cessation counselling: Cross-country. Data from the Global Health Professions Student Survey (GHPSS), 2005-7. *BMJ. Tobacco Control*, 17.
- Wilson, J. (1963) *Thinking with Concepts*, Cambridge University Press, New York, NY
- Yeh, L., Chen, C. H., Wang, C. J., Wen, M. J. & Fetzer, S. J. (2005) A preliminary study of a healthy-lifestyle-promoting program for nursing students in Taiwan. *Journal of Nursing Education*, 44, 563-565.
- Zapka, J. M., Lemon, S. C., Magner, R. P. & Hale, J. (2009) Lifestyle behaviours and weight among hospital-based nurses. *Journal of Nursing Management*, 17, 853-860.

Table 1 Participant characteristics

Focus Group	Participant	Registration status/branch/dept.	Sex	Age	Ethnicity
1	1	Pre-registered (PR)	F	48	Black British
	2	PR	F	34	White British (WB)
	3	PR	F	27	White
	4	PR	F	30	White
	5	PR	F	22	WB
	6	PR	F	21	Black African
	7	PR	F	38	WB
	8	PR	F	39	White
2	9	PR	F	29	Mixed. White/Asian
	10	PR	F	22	WB
	11	PR	F	31	White
	12	PR	M	25	WB
	13	PR	F	29	Mixed. Black Caribbean/Polish
	14	PR	F	24	White British
	15	PR	F	21	White British/French
	16	PR	F	28	WB
	17	PR	F	33	WB
	18	PR	F	21	WB
3	19	Registered. Child. A&E	M	29	WB
	20	Registered. Adult. Primary Care.	F	48	White
	21	Registered. Adult. Acute Medicine	F	23	Black
4	22	Lecturer- palliative care	F	58	WB
	23	Lecturer- community	F	43	WB
	24	Lecturer- Primary care	F	53	British (Irish)
5	25	Lecturer-Adult. Intensive Therapy Unit.	F	57	White Irish
	26	Lecturer-Learning Disability	F	57	White
	27	Lecturer- Child	F	54	White
	28	Lecturer-Adult Acute Care	F	40	White
6	29	Registered. Midwifery	F	34	White
	30	Registered. Adult. Accident & Emergency	F	37	White

	31	Registered. Child. Day surgery	F	33	Black
	32	Registered. Adult. Day surgery	F	52	White
	33	Registered. Mental Health	M	36	White
	34	Registered. Midwifery	F	34	WB
	35	Registered. Adult. Theatres	F	-	Asian
	36	Registered. Midwifery	F	39	Black British
	37	Registered. Midwifery	F	32	White
	38	Registered. Adult	F	58	Black
(Interview) 7	39	Registered. Advanced Nurse Practitioner. Primary Care	F	55	WB

Table 2. Antecedents, defining attributes and consequences for role modelling healthy behaviour

ANTECEDENTS			
Individual	Societal	Organisational	Educational
<ul style="list-style-type: none">•Belief that being a healthy role model can have an impact•Valuing Self putting yourself first sometimes•Empowerment	<ul style="list-style-type: none">•Social and political awareness•Obligation•Positive image of nursing	<ul style="list-style-type: none">•Workplace supports healthy lifestyle•Address workplace stress•Nurse leaders as healthy role models•Feeling valued	<ul style="list-style-type: none">•Understanding and application of health promotion in pre-reg nurses (curriculum): addressing personal health/healthy coping mechanisms•Understanding of health promotion (through training) for registered nurses•Clear definition of role modelling health promoting behaviour•Personal resilience and self healing
DEFINING ATTRIBUTES			
Individual		Societal	
<ul style="list-style-type: none">•Caring: gentle, sensitive and approachable empathetic•Non judgemental and realistic•Trustworthy: honest, open and transmitting ethics•Inspiring and motivating: positive, charismatic and passionate•Sense of self: Self awareness, self reflection, self confidence•Self Caring: resilient, be fit and healthy•Knowledgeable and self confident•Innovative, creative, flexible•Professional		<ul style="list-style-type: none">•Portraying self in a healthy way: being fit and healthy•Being an exemplar/ practice what you preach•Championing health and wellness: being an advocate for change	
CONSEQUENCES			
Individual	Societal	Organisational	
	<ul style="list-style-type: none">•Nurses seen as leaders and champions in public health	<ul style="list-style-type: none">•High quality patient care: improves patient outcomes	

	<ul style="list-style-type: none"> •Behaviour change in others (patients, friends, family and colleagues) •Reduces population risk factors: addresses obesity epidemic •Change health of Nation: positive influence on health of public •Improves lives, health and quality of life 	<ul style="list-style-type: none"> •New generation of public health workforce •Delivery of government policy •Validates and gives credibility of advice patient more likely to heed advice •Impact on nurse recruitment by setting standard not all wish to meet
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Table 3: Empirical referents for role-modelling healthy behaviour

Defining Attribute	Empirical Referent
Portraying yourself in a healthy way	Being fit and healthy by demonstrating healthy behaviours in some way and not being observed engaging in unhealthy behaviours e.g. smoking and eating fast foods
Being an exemplar, practising what you preach	Transferring knowledge of health behaviours to self, for own well being.
Championing health and wellness	Promoting healthy behaviours amongst colleagues, patients and wider community of family and friends

Figure 1: Captured Multi-Discipline Literature

